Recombinant Mouse IGSF4C/SynCAM4 Fc Chimera

Catalog Number: 9906-S4

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived mouse IGSF4C/SynCAM4 protein

Mouse IGSF4C (Gln25-Ala324) Accession # Q8R464	IEGRMD	Human IgG_1 (Pro100-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis

No results obtained. Gln25 inferred from enzymatic pyroglutamate treatment revealing Glu26.

Structure / Form

Disulfide-linked homodimer

Predicted Molecular Mass

60 kDa

SPECIFICATIONS

SDS-PAGE

81-93 kDa, reducing conditions

Activity

Measured by its ability to enhance neurite outgrowth of E16-E18 rat embryonic cortical neurons.
Recombinant Mouse IGSF4C/SynCAM4 Fc Chimera, immobilized at 0.5-1 µg/mL on a 96-well plate, is able to significantly enhance neurite outgrowth.

Endotoxin Level

<0.10 EU per 1 µg of the protein by the LAL method.

Purity

>95%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.

Formulation

Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution

Reconstitute at 1 mg/mL in PBS.

Shipping

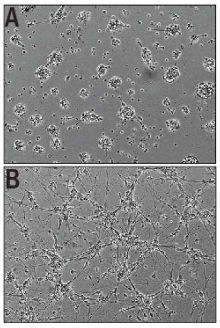
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage

- 12 months from date of receipt, ≤ -20 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, ≤ -20 °C under sterile conditions after reconstitution.

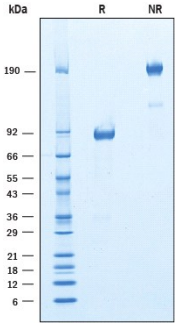
DATA

Bioactivity



Recombinant Mouse IGSF4C/SynCAM4 Fc Chimera (Catalog # 9906-S4) Induces Cortical Neurite Outgrowth. A) Untreated E16-18 embryonic rat cortical neurons. B) Neurite outgrowth in E16-18 embryonic rat cortical neurons treated with 0.5 µg/mL of Recombinant Mouse IGSF4C/SynCAM4 Fc Chimera.

SDS-PAGE



2 µg/lane of Recombinant Mouse IGSF4C was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® Blue staining, showing bands at 81-93 kDa and 160-190 kDa, respectively.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449

Recombinant Mouse IGSF4C/SynCAM4 Fc Chimera

Catalog Number: 9906-S4

BACKGROUND

IGSF4C is an immunoglobulin superfamily member that is also known as Nectin-like protein 4 (Necl-4), synaptic cell adhesion molecule 4 (SynCAM4), or tumor suppressor in lung cancer-like 2 (TSLL-2) (1, 2). The four IGSF4 proteins, designated A, B, C and D, are type I transmembrane glycoproteins expressed mainly in neurons, but also in lung, kidney, bladder, prostate and testis (1-5). Each contain one V-type Ig-like and two C2-type Ig-like domains. These domains are responsible for Ca^{++}-independent homophilic and heterophilic interactions. The 388 a mouse IGSF4C contains a 24 aa signal sequence, a 300 aa ECD that shares 99% amino acid (aa) identity with rat and human IGSF4C, a 21 aa transmembrane sequence, and a 43 aa cytoplasmic domain. The apparent size of mouse or human IGSF4C may be variably reported as 48-67 kDa, probably due to differences in glycosylation (2, 5, 6). In the peripheral nervous system, IGSF4C is expressed on Schwann cells, and its internodal interaction with IGSF4A (Necl-1, SynCAM-3) on axons is critical for adhesion and myelination (6-8). In the brain, all IGSF4 family members are expressed at high levels concurrent with synapse formation (4). In the cerebellum, IGSF4C is expressed on Purkinje cells, with complementary expression of IGSF4 on granule cells (4). Heterophilic interaction with IGSF4D (Necl-3, SynCAM2) has also been identified, but homophilic interaction is unlikely (4, 7). IGSF4C is also proposed as a tumor suppressor that is down-regulated in many prostate cancers and gliomas (1, 5).

References:

1. Fukuhara, H. *et al.* (2001) Oncogene **20**:5401.
2. Biederer, T. *et al.* (2006) Genomics **87**:139.
3. Takai, Y. *et al.* (2008) Nat. Rev. Mol. Cell Biol. **9**:603.
4. Thomas, L. A. *et al.* (2008) J. Comp. Neurol. **510**:47.
5. Williams, Y. N. *et al.* (2005) Oncogene **25**:1446.
6. Maurel, P. *et al.* (2007) J. Cell Biol. **178**:861.
7. Fogel, A. I. *et al.* (2007) J. Neurosci. **27**:12516.
8. Spiegel, I. *et al.* (2007) Nat. Neurosci. **10**:861.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 **Canada** TEL 855 668 8722 **China** TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449